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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,910	03/07/2000	Koichi Matsuda	SONY-T0291	9309

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EXAMINER

NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 03/23/2004

20

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/520,910

Applicant(s)

MATSUDA ET AL.

Examiner

Chau Nguyen

Art Unit

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-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-19 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment C, received on 02/11/2004, has been entered. Claims 1-19 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morse et al. (Morse), US Patent No. 5,802,296, Matsui et al. (Matsui), US Patent No. 5,956,028, and further in view of Falacara et al. (Falacara), US Patent No. 6,377,263.

4. As to claim 1, Morse discloses an information processing system in which:
a server (col. 2, lines 15-22 and Fig. 1);
a network (col. 2, lines 15-22 and Fig. 1);

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plural terminals each configured to be connected to the server via the network (col. 2, lines 15-22 and Fig. 1: clients 130 are connected to a server computer 140 via a network);

wherein the server provides data defining a virtual community space accessible from each of the terminals (col. 3, line 14 – col. 4, line 43: server computer 140 includes a data structure for each object in the virtual world and the server 140 maintains a list of all oracles (terminals) and acolytes (terminals) on duty, so when another avatar (terminal) pages an oracle or an acolyte, server 140 selects an oracle or acolyte from the list and sends an appropriate message to the respective terminal),

wherein each of the terminals provides virtual living object based upon user input and to provide message or data to the server via the network (col. 2, lines 23-63: in a virtual world, avatars 180 can interact with each other under the control of users 120 by controlling their respective avatars 180, and each user 120 can control its avatar 180 by issuing commands via the keyboard and/or mouse of client 130); and

wherein the server determines at least some movements for each virtual living object in the virtual community space based on the movement interpretation node received from each terminal (col. 5, lines 12-17: user selects one of three options, a message then is sent to server 140 to set the supervisory powers of avatar 180).

However, Morse does not disclose a management node for the virtual living object in the virtual community space is provided at the server. In the same field of endeavor, Matsui discloses the data management computer 200 (server) comprises a

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communication processing unit 211 (a management node) which receives information from the network NW and sends out information to the network NW (col. 4, lines 29-52 and col. 11, lines 9-26).

Since Matsui teaches a virtual space communication system including plural client computers manipulated by individual users and a host computer are connected through a network, which is similar to a computer system including computers interconnected by a network creates a virtual world in which computer users can interact with each other of Morse, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse and Matsui to include a management node for the virtual living object in the virtual community space at the server. Matsui teaches that the management computer 200 manages the property data of the objects changed on the basis of the manipulation input at each client computer, thereby allowing the user of each client sharing the virtual space to communicate through the behavior of the objects in the virtual space.

However, Morse and Matsui do not teach a movement interpretation node configured to set forth parameters needed for interpretation of the movement of a virtual living object. In the same field of endeavor, Falacara teaches software modules (a movement interpretation node) are attributes, rules, and parameters that may be used to affect the basic visual appearance and behavior of a component (virtual living object) (Abstract). Since Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would have been

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obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

As to claims 2, 6, and 10, Morse, Matsui, and Falacara disclose the management node for the virtual living object manages at least the action of the virtual living object in the virtual community space based on the movement interpretation node parameters (Matsui, col. 4, lines 29-52 and col. 11, lines 9-26). Since Matsui teaches a virtual space communication system including plural client computers manipulated by individual users and a host computer are connected through a network, which is similar to a computer system including computers interconnected by a network creates a virtual world in which computer users can interact with each other of Morse, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse and Matsui to include a management node for the virtual living object in the virtual community space at the server. Matsui teaches that the management computer 200 manages the property data of the objects changed on the basis of the manipulation input at each client computer, thereby allowing the user of each client sharing the virtual space to communicate through the behavior of the objects in the virtual space.

wherein the movement interpretation node parameters include at least a parameter indicative of a structure of the virtual living object (Falacara, Abstract). Since

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Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

5. As to claim 3, Morse, Matsui, and Falacara disclose an information processing method comprising the steps of:

building a virtual living object at a terminal (Morse, col. 2, lines 45-53);

determining a movement interpretation node setting forth at least some parameters needed fro interpretation of at least some of the movements of the associated virtual living object at the terminal (Matsui, col. 4, lines 29-52 and col. 11, lines 9-26 and Falacara, Abstract);

connecting the terminal to a server via a network (Morse, col. 2, lines 15-22);

building a virtual community space based on information supplied from the server (Matsui, Abstract); and

transmitting the virtual living object along with the associated movement interpretation node to the server to at least in part manage movement of the associated virtual living object in the virtual community space (Morse, col. 2, lines 23-63).

Since Matsui teaches a virtual space communication system including plural client computers manipulated by individual users and a host computer are connected

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through a network, which is similar to a computer system including computers interconnected by a network creates a virtual world in which computer users can interact with each other of Morse, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse and Matsui to include a management node for the virtual living object in the virtual community space at the server. Matsui teaches that the management computer 200 manages the property data of the objects changed on the basis of the manipulation input at each client computer, thereby allowing the user of each client sharing the virtual space to communicate through the behavior of the objects in the virtual space.

Since Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

6. As to claims 4 and 8, Mores, Matsui, and Falacara disclose wherein the at least some parameters needed for interpretation of at least some of the movements of the associated virtual living object of the movement interpretation node include a parameter indicative of at least a structure of the virtual living object (Falacara, Abstract and col. 10, lines 38-57). Since Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would

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have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

7. As to claims 5, 7, and 9, Morse, Matsui, and Falacara disclose an information processing method comprising the steps of:

connecting a server to a terminal via a network (Morse, col. 2, lines 15-22);

receiving data over the network from the terminal indicating a virtual living object built by the terminal and a movement interpretation node setting forth at least some parameters needed for interpretation of at least some of the movements of the virtual living object node (Morse, col. 2, lines 15-53; Matsui, col. 11, lines 31-51; Falacara, Abstract); and

generating a management node for determining at least one movement of the virtual living object in a virtual community space based on the movement interpretation node being received (Matsui, col. 4, lines 29-52 and col. 11, lines 9-26).

Since Matsui teaches a virtual space communication system including plural client computers manipulated by individual users and a host computer are connected through a network, which is similar to a computer system including computers interconnected by a network creates a virtual world in which computer users can interact with each other of Morse, it would have been obvious to one of ordinary skills in

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the art at the time the invention was made to combine the teachings of Morse and Matsui to include a management node for the virtual living object in the virtual community space at the server. Matsui teaches that the management computer 200 manages the property data of the objects changed on the basis of the manipulation input at each client computer, thereby allowing the user of each client sharing the virtual space to communicate through the behavior of the objects in the virtual space.

Since Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

8. As to claim 11, Morse, Matsui, and Falacara disclose an information serving medium for serving a computer program comprising the steps of:

interpreting at least the structure of a virtual living object built as a one which can be provided in a virtual community space (Matsui, col. 4, lines 29-45; Morse, col. 2, lines 15-53 and Fig. 1);

communicating with a master managing mechanism which manages the virtual living object in the virtual community space (Matsui, Abstract); and

moving the built life object based on data generated by the master managing mechanism to control at least the action of the virtual living object (Morse, col. 3, line 14 – col. 4, line 43).

Since Matsui teaches a virtual space communication system including plural client computers manipulated by individual users and a host computer are connected through a network, which is similar to a computer system including computers interconnected by a network creates a virtual world in which computer users can interact with each other of Morse, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse and Matsui to include a management node for the virtual living object in the virtual community space at the server. Matsui teaches that the management computer 200 manages the property data of the objects changed on the basis of the manipulation input at each client computer, thereby allowing the user of each client sharing the virtual space to communicate through the behavior of the objects in the virtual space.

Since Falacara discloses a system and method for creating a virtual reality, which is similar to virtual space communication of Morse and Matsui, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Morse-Matsui and Falacara to includes a parameter indicative of at least the structure of the living object. Falacara suggests that using a parameter to establish an initiate state for each virtual reality object instantiated in the virtual world.

Allowable Subject Matter

9. Claims 12-19 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art shows server computer 140 includes a data structure for each object in the virtual world and the server 140 maintains a list of all oracles (terminals) and acolytes (terminals) on duty, so when another avatar (terminal) pages an oracle or an acolyte, server 140 selects an oracle or acolyte from the list and sends an appropriate message to the respective terminal; in a virtual world, avatars 180 can interact with each other under the control of users 120 by controlling their respective avatars 180, and each user 120 can control its avatar 180 by issuing commands via the keyboard and/or mouse of client 130; and software modules (a movement interpretation node) are attributes, rules, and parameters that may be used to affect the basic visual appearance and behavior of a component (virtual living object).

Claim 12 is allowed because the prior art of record does not expressly disclose alone or in combination "the parameters defining at least bones and joints of the associated virtual living object, limits of joint movement, and movement of the bones and joints".

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11. The dependent claim 13 further limitation independent claim 12. Claims 14-19 are considered allowable for the same reasons set forth for claims 12-13.

Response to Arguments

In the remarks, Applicants argued in substance that

(A) Prior arts do not teach or suggest the generation of the claimed movement interpretation node that will define at least one aspect of the movement of the virtual living object of that terminal.

As to point (A), Falacara teaches software modules (a movement interpretation node) are attributes, rules, and parameters that may be used to affect the basic visual appearance and behavior of a component (virtual living object) (Abstract).

(B) Prior arts do not teach or suggest a server is to provide a management node that will use interpretation node data to actually manage the movement of a virtual living object in a virtual community space.

As to point (B), Matsui discloses the data management computer 200 (server) comprises a communication processing unit 211 (a management node) which receives information from the network NW and sends out information to the network NW (col. 4,

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lines 29-52 and col. 11, lines 9-26). Matsui also discloses the data management computer 200 (including a communication processing unit 211) manages the VRML (Virtual Reality Modeling Language) file expressing a virtual space and transfers the VRML file to each client computer 200 through the network (Abstract).

12. Applicant's arguments of claims 1-11 filed on 02/11/2004 have been fully considered but they are not deemed fully persuasive. Please see the rejection and response to arguments above.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (703) 305-4639. The Examiner can normally be reached on Monday-Friday from 8:00 am to 6:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (703) 305-9792.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 872-9306 (After Final Communications only)

(703) 872-9306 (Official Communications)

(703) 746-7240 (for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

Chau Nguyen
Patent Examiner
Art Unit 2176


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER